DETAILED ACTION

Response to Amendment

1. Applicant's amendment was received on 5/20/09, and has been entered and made of record. Currently, **claims 1-6, 13-18, 25-30, 37-39 and 41-49** are pending.

Specification

2. The corrected or substitute specification was received on 5/20/09. The specification is acceptable.

Response to Arguments

3. Applicant's arguments with respect to **claims 41-44 and 46-49** have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 41-44 and 46-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Murphy et al. U.S. Patent No. 6,661,531 (hereinafter Murphy) in view of Iwami et al. U.S. Patent Application Publication No. 2004/0070672 (hereinafter

Iwami) and further in view of Denton et al. U.S. Patent No. 5,751,299 (hereinafter Denton).

With respect to claim 41, Murphy discloses an image forming device (printer 14 in fig. 1) for forming an image from image data transferred from a image data storage device (host computer 12 having a memory unit 18 in fig. 1) via an external interface (interface connecting the PC and the printer in fig. 1 & col. 4, line 50) that can be connected to said image data storage device, comprising:

a data size acquiring unit that acquires data size of said image data, for which an image is formed, from said image data storage device (data size sent by the PC in col. 4, lines 33-38 & lines 54-56); and

a calculating unit for calculating transfer completion time required for transferring said image data, for which said image is formed, based on said data size of the image data acquired by said data size acquiring unit (the amount of data to be received in col. 4, lines 54-56) and a speed of transferring data (estimate data rate in col. 4, lines 40-53) via said external interface (printer calculating the data transfer time in col. 4, lines 54-56).

Murphy, however, does not explicitly disclose that the image data storage device is a portable image data storage device.

Iwami discloses a page printer that uses an electronic photography type process (paragraph 45) for directly receiving print data from a portable image data storage device such as a digital camera via external interfaces (fig. 5 & paragraph 51).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the image forming device of Murphy to receive the digitally captured image data from the digital camera and image process the image data as taught by Iwami.

The suggestion/motivation for doing so would have been to provide a direct communication between the printer and the digital camera for printing images without a host computer (paragraph 6 of Iwami).

The combination, however, does not disclose that the page printer uses an electrophotography type process.

Denton, the same field of endeavor of the inkjet printing art, discloses an inkjet printer that uses an electrophotography type process (col. 1, line 66 – col. 2, line 14).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the image forming device of Murphy to include the electrophotography type function as taught by Denton.

The suggestion/motivation for doing so would have been to achieve excellent and accurate registration of images (col. 1, line 66 – col. 2, line 14 of Denton).

Therefore, it would have been obvious to combine three references to obtain the invention as specified in claim 41.

With respect to claim 42, Murphy discloses the image forming device further calculating: output completion time required for image forming output of the image data, for which said image is formed (calculating print process time in col. 5, lines 25-33).

With respect to claim 43, Murphy discloses the image forming device further comprising: an output setup information receiving unit for receiving output setup information to be set up concerning image forming output condition (unit for receiving user selection of quality settings in col. 5, lines 54-56).

With respect to claim 44, Murphy discloses the image forming device but it does not explicitly disclose a cancellation capability notifying unit for notifying that it is possible to cancel a connection with said image data storage device before the image forming output is completed for said image data, for which an image is formed, after the transfer is completed for said image data, for which an image is formed.

Iwami discloses a cancellation capability notifying unit for notifying that it is possible to cancel a connection with said image data storage device before the image forming output is completed for said image data, for which an image is formed, after the transfer is completed for said image data, for which an image is formed (unit for sending the JobDataDone command for notifying that all job data have been received to the digital camera in paragraph 61 & fig. 13). At the time of the invention, it would have been obvious to one of ordinary skill in the art that this command is a notification to the digital camera that it is possible to cancel the connection between the two devices since it directly causes the digital camera to inform the user to disconnect the connection.

Furthermore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the image forming device of Murphy to include the cancellation capability notifying unit as taught by Iwami.

The suggestion/motivation for doing so would have been to inform the user before the completion of a print process of a digital image that the connection can be disconnected (parapraph 4 of Iwami).

Therefore, it would have been obvious to combine Murphy with Iwami to obtain the invention as specified in claim 44.

With respect to claims 46, Iwami discloses that said image data storage device is a digital camera (the printer connected to the digital camera in fig. 5).

With respect to claims 47, Murphy discloses that said image data storage device is a recording medium (memory unit 18 in host computer of fig. 1).

With respect to claim 48, Murphy discloses an image forming system (fig. 1), comprising:

a personal computer (host computer 12); and

an image forming device (printer 14) for forming an image from image data transferred from said PC via an external interface that can be connected to said PC (interface connecting the PC and the printer in fig. 1 & col. 4, line 50);

said PC including:

a transmitting unit for transmitting data size of image data, for which said image is formed, to said image forming device (PC sending the data size according to col. 4, lines 33-38 & lines 54-56);

said image forming device including:

a receiving unit for receiving the data size of the image data, for which said image is formed, from said PC (interface connecting the PC and the printer in fig. 1 & col. 4, line 50); and

a calculation unit for calculating transfer completion time required for transferring said image data, for which said image is formed, based on said data size of the image data received by said receiving unit (the amount of data to be received in col. 4, lines 54-56) and a speed of transferring data (the estimated data rate in col. 4, lines 40-53) via said external interface (printer calculating the data transfer time in col. 4, lines 54-56).

Murphy, however, does not explicitly disclose that the image data storage device is a portable image data storage device.

Iwami discloses a page printer that uses an electronic photography type process (paragraph 45) for directly receiving print data from a portable image data storage device such as a digital camera via external interfaces (fig. 5 & paragraph 51).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the image forming device of Murphy to receive the digitally captured image data from the digital camera and image process the image data as taught by Iwami.

The suggestion/motivation for doing so would have been to provide a direct communication between the printer and the digital camera for printing images without a host computer (paragraph 6 of Iwami).

The combination, however, does not disclose that the page printer uses an electrophotography type process.

Denton, the same field of endeavor of the inkjet printing art, discloses an inkjet printer that uses an electrophotography type process (col. 1, line 66 – col. 2, line 14).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the image forming device of Murphy to include the electrophotography type function as taught by Denton.

The suggestion/motivation for doing so would have been to achieve excellent and accurate registration of images (col. 1, line 66 – col. 2, line 14 of Denton).

Therefore, it would have been obvious to combine three references to obtain the invention as specified in claim 48.

With respect to claim 49, arguments analogous to those presented for claim 41, are applicable.

Allowable Subject Matter

5. **Claims 1-6, 13-18, 25-30 and 37-39** are allowed.

6. **Claim 45** is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHAN S. PARK whose telephone number is (571)272-7409. The examiner can normally be reached on M-F 8am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Coles can be reached on (571) 272-7402. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/CHAN S PARK/
Primary Examiner, Art Unit 2625

August 25, 2009